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MONTEREY, CALIFORNIA

THESIS

ORGANIZING POLICE EXPEDITIONARY CAPACITIES: INSIGHTS INTO A WICKED PROBLEM TERRITORY WITH MATHEMATICAL MODELING

by

Miroslav Lipowski

June 2010

Thesis Advisor:	Erik Jansen
Second Reader:	Frank Giordano

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REPORT DOCUMENTATION PAGE		Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.

1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	June 2010	Master's Thesis

4. TITLE AND SUBTITLE Organizing Police Expeditionary Capacities: Insights into a Wicked Problem Territory with Mathematical Modeling	5. FUNDING NUMBERS
6. AUTHOR(S)	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A	10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB Protocol number _____.

12a. DISTRIBUTION / AVAILABILITY STATEMENT	12b. DISTRIBUTION CODE
Approved for public release; distribution is unlimited	

13. ABSTRACT (maximum 200 words)

Population-centric operations force modern western democratic states to deploy both police and military capacities. Globalization and under-governed states have transformed traditional security threats; now external security threats are generated by internal factors, and internal security threats are generated by external factors. Military organizations designed to address external security threats are ill suited to deal with internal security threats.

Operations in Kosovo, Afghanistan and Iraq show the need for police expeditionary capacities to fill in for indigenous institutions following regime overthrow. Modern state organizations do not produce the quality and quantity of deployable police needed in the time required.

States have several options for addressing their police expeditionary capacities. This thesis assesses the basic options with mathematical modeling of the dynamics between military and police organizations. The thesis describes a hybrid option with best organizational practices, represented by gendarmerie-type organizations. Comparing their characteristics with the outcomes of the modeled game demonstrates that the hybrid option best captures the characteristics of the Nash point as the hypothetically optimal objective of the arbitration process; it thus represents a suitable and sustainable organizational solution. The outcomes of the modeled game also suggest an arbitration process to consider the hybrid option.

14. SUBJECT TERMS	15. NUMBER OF PAGES
Police expeditionary capacities; counterinsurgency; gendarmeries; paramilitary organizations; executive policing; population centric operations; mathematical modeling; game theory; interagency cooperation; stabilization and reconstruction operations; irregular warfare; security force assistance.	75
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UU

NSN 7540-01-280-5500 Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. 239-18

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ORGANIZING POLICE EXPEDITIONARY CAPACITIES: INSIGHTS INTO A WICKED PROBLEM TERRITORY WITH MATHEMATICAL MODELING

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TABLE OF CONTENTS

I. INTRODUCTION....1
A. AUTHOR'S MOTIVES FOR STUDYING POLICE EXPEDITIONARY UNITS....1
B. SCOPE AND PURPOSE....3
C. RESEARCH QUESTIONS....4
D. METHODS....4
E. PLAN OF THE THESIS....5

II. POLICE EXPEDITIONARY CAPACITIES FROM THE PERSPECTIVE OF THE MODERN WESTERN DEMOCRATIC STATE....7
A. THE NEW CHARACTER OF SECURITY THREATS....7
B. SECURITY ORGANIZATION MISMATCH....12
C. POLICE EXPEDITIONARY CAPACITIES IN MISMATCHED SECURITY ORGANIZATIONS....13

III. MATHEMATICALLY MODELING THE STATE AND MAJOR STAKEHOLDER PERSPECTIVES....19
A. OVERVIEW....19
B. MODELING THE STATE PERSPECTIVE ON THE TRADITIONAL TWO ORGANIZATION OPTION WITH DECISION THEORY....19
C. ASSESSING ORGANIZATIONS' KNOWLEDGE, SKILLS AND ABILITIES....23
D. ASSESSING ORGANIZATIONAL RESOURCES....25
E. ASSESSING ORGANIZATIONAL INCENTIVES AND MOTIVATIONS....26
F. CONCLUSIONS....27

IV. ANALYSIS OF MAJOR STAKEHOLDERS PERSPECTIVES USING GAME THEORY: "PROTECTORS' DILEMMA"....29
A. INTRODUCTION....29
B. DETERMINATION OF PLAYERS....30
C. PLAYERS' STANDPOINTS AND PREFERENCES....30
D. PLAYERS' STRATEGIES....32
1. Combination of Strategies and Their Outcomes....33
E. PLAYERS' ORDINAL VALUES OF OUTCOMES....34
F. ANALYSIS OF OUTCOMES....37
1. Matrix Analysis....37
2. Graph Analysis....37
3. Analysis of Strategic Moves....38
G. INTERPRETATION OF MODELED GAME OUTCOMES....40
1. Interpretation of Matrix Analysis....40
2. Interpretation of Graph Analysis....40

3. Interpretation of the Strategic Moves Analysis....41
H. CONCLUSIONS....43
V. DISCUSSION....45
A. BEST OBSERVED ORGANIZATIONAL PRACTICES: GENDERMARIE TYPE ORGANIZATIONS....45
B. INTERNATIONAL PERSPECTIVES....51
VI. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH AND PRACTICE....55
LIST OF REFERENCES....57
INITIAL DISTRIBUTION LIST....59

LIST OF FIGURES

Figure 1. A hierarchical categorization of security threats facing modern western democratic states 10

Figure 2. The state's perspective represented as a decision tree with two options (MOs versus POs) and two outcomes (success versus failure) for each option. 21

Figure 3. Structure of analysis using PROS and CONS with respect to strengths and future opportunities and weaknesses and future barriers for organizing police expeditionary capacities 22

Figure 4. Graph analysis 38

Figure 5. A modified decision tree as viewed from the state's perspective 49

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LIST OF TABLES

Table 1. A flow diagram of the author's assessments of the pros and cons with respect to the strengths and future opportunities and weaknesses and future barriers 23
Table 2. Table of outcomes 33
Table 3. Ordinal values assigned to represent the POs' perspectives on the possible outcomes of the four strategy combinations 34
Table 4. Ordinal values assigned to represent the MOs' perspectives on the possible outcomes of the four strategy combinations 35
Table 5. Ordinals values of both players reflecting author's personal judgment in the matrix 36
Table 6. Analysis of modeled game matrix 37

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ACKNOWLEDGMENTS

I would like to thank my thesis advisor, Professor Erik Jansen, for his support and guidance in the development of my thesis. His mentorship, insight, and patience made my thesis possible.

I would like to express the deepest appreciation to my second reader, Professor Frank Giordano, for his advices and support.

I would like to thank the people of USA who sponsored my studies and stay and staff of the Naval Postgraduate School who provided me with a truly exceptional educational experience.

Finally, I would like to thank my parents, my wife, Tana, and my daughters, Johana and Karolina. I would not be here today without your support and confidence.

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I. INTRODUCTION

A. AUTHOR'S MOTIVES FOR STUDYING POLICE EXPEDITIONARY UNITS

My first experience with a population-centric international security operation was in Kosovo in 2000–2001, where I served the United Nations Mission in the Kosovo Civilian Police (UNMIK CIVPOL) as a member of its Close Protection Unit, a part of UNMIK CIVPOL's Special Operations Group (SOG). This UNMIK CIVPOL Special Operations Group was composed of three main operational elements. Intelligence and Analysis collected and analyzed specific police intelligence, the Close Protection Unit provided personal security for high risk personal, including international dignitaries and indigenous dignitaries, and Special Team Six conducted high risk arrests, hostage rescue and evacuation and extraction operations. The SOG demonstrated specific "high end police capabilities" as described in a RAND Corporation study on police expeditionary capacities for stabilization operations.[1] This international civilian police organizational element proficiently and efficiently performed typical military tasks overseas, which were frequently conducted by military units in the Afghanistan and Iraq conflicts. In addition to "high end police tasks," other essential police functions like patrolling, investigation and emergency response were conducted in Kosovo by professional international police officers within UNMIK CIVPOL. Military representatives of KFOR played a supporting role in these operations. From the beginning, international police officers did not live on protected bases, but instead stayed with the local population.

A year later, when I conducted security advance team operations for Czech Ministry of Defense dignitaries in Afghanistan, I saw a very different picture. Apart from incompetent indigenous police, during stabilization at the end of the conventional phase

[1] Terrence K. Kelly et al., *A Stability Police Force for the United States: Justification and Options for Creating U.S. Capabilities*. (Santa Monica: RAND Corporation, 2009), http://www.rand.org/pubs/monographs/2009/RAND_MG819.pdf (accessed April 28, 2010).

of the operation, I saw only international military forces; there were no international police at all. The same situation and the lack of international police was evident also in Iraq in 2003 and 2005.

The most striking case I observed was in 2008 while visiting my unit, the Special Operations Group of Military Police, in Afghanistan's Logar province. Before they arrived to assist with special capabilities, there was literally nobody in their area of operations competent to conduct operations similar to police operations. Such operations are essential to a population-centric approach. The soldiers soon found police informers to provide information about local "bad guys," which resulted into several successful "police style" operations. These soldiers were capable of such operations because over half had civilian police experience. This special unit was established *ad hoc* when the Czech Ministry of Defense recognized the urgent need for paramilitary/police capabilities in military environments and conflict zones after September 11, 2001. The best way to achieve the required capabilities quickly was to transfer police officers, many with international experience, to establish and build the unit. This unit had the highest pace of operations in the Czech Armed Forces and operated successfully in every place the Czech Republic was involved between 2001 and 2009 (Kosovo, Kuwait, Iraq and Afghanistan). Although this group was actually a military police, its participation comprised heaviest combat operations of any Czech military unit since World War II, in Helmand province in 2007-2008. In 2007 it suffered the Czech military's first official combat related casualty since World War II. The Special Operations Group was "reorganized without adequate replacement" in September 2009; the circumstances and the defense ministry's reasons for the reorganization remains unclear.

In comparison to the performance of other Czech units involved in the broad spectrum of population-centric conflict, this unit's operational flexibility and contributions were so striking that I decided to dedicate my thesis to police expeditionary capacities in current conflicts, with a focus on the organizational aspects.

B. SCOPE AND PURPOSE

There are several reasons to examine why and how modern western democratic states (MWDS) should organize their police expeditionary capacities. For a student of Irregular Warfare and Special Operations in the Naval Postgraduate School Defense Analysis program, it is clear that categories like Foreign Internal Defense; Law Enforcement; Stabilization, Security, Transition, and Reconstruction (SSTR); and Intelligence and Counterintelligence all relate directly to the police expeditionary capacities of MWDS. These are just a few of the "Operations, Actions and Activities that Comprise Irregular Warfare" identified by the United States Special Operations Command (USSOCOM) in its "Irregular Warfare and Security Force Assistance Reference Sheet" (version 1-11 Jun 08). For the year 2010, USSOCOM's list of research topics also includes topics related to police expeditionary capacities as an important part of Irregular Warfare. Included as "priority topics" are "How to build capabilities to conduct local, regional, and global assessments of counterterrorist network effectiveness" and "Building an IW [Irregular Warfare] force of the future." The foreword of the research topics list notes that

> The overarching focus of interagency research is how to best ensure the interagency process meets requirements for successful prosecution of the ongoing irregular form of war. Irregular warfare engenders much debate, and its concepts are strongly linked to the interagency process."[2]

The scope of this thesis is the problem territory of organizing for police expeditionary capacities, as within Irregular Warfare, with a focus on interagency processes. The purpose of the thesis is to contribute to the MWDS's ability to organize police expeditionary capacities for overseas population-centric operations by better framing and identification of the organizational problem territory.

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[2] USSOCOM, *"Irregular Warfare and Security Force Assistance Reference Sheet" (version 1-11 Jun 08),* Joint Special Operations University, https://jsoupublic.socom.mil. (accessed May 3, 2010).

C. RESEARCH QUESTIONS

The thesis focuses on three research questions connected with insurgencies and stabilization operations in population-centric operations. The first question involves the possible contributions of a specific research method to the problem of interagency relations and collaborations. The second asks how interpretations of the mathematically modeled results can be used to frame and provide insights about the organizational problem that is the focus of this thesis. The third question addresses the more specific problem of the organizational processes and dynamics between major sub-state stakeholders in building and deploying missing police capabilities.

The specific research questions are:

1. Can mathematical modeling using analyses based on game theory contribute insights for assessing an important interagency problem?
2. How do interpretations of the outcomes of models based on game theory help to frame and identify the organizational problem?
3. How can best organizational practices (identified as gendarmerie-type of organizations) be incorporated into the problem framing and problem solving processes?

D. METHODS

The central method used in this thesis is mathematical modeling of the problem territory from MWDS' perspective and from the perspectives of military organizations (MO) and police organizations (PO) as two major sub-state stakeholders in the process. In framing and analyzing the problem territory from the state's perspective, Decision theory is used to frame the state's option to task either military or police organizations to transform and generate required capabilities. The problem is framed from MOs' and POs' perspectives using game theory to represent their perspectives, anticipate their capabilities realistically, and identify constraints, self- interest, and common interests.

The chapter on decision theory frames the problem territory. It requires establishing a platform for evaluating utilities for the numerical interpretation of observed

variables. The validity of the utilities presented in the chapter on game theory is supported by arguments about the quantitative, qualitative and timing aspects of police expeditionary capacities derived from observations of interventions and post-conventional operations in Kosovo, Afghanistan and Iraq. The model's validity is supported by outcomes from another model developed to account for the perspectives of the major "stakeholders," which are police organizations (Ministry of Interior or Homeland Security) and military organizations (Ministry of Defense or Department of Defense). The game theory chapter assesses the outcomes of a game played without communication between POs and MOs. Analysis of outcomes of the game also illustrate the wickedness of the problem and underline the importance of the dynamics between major stakeholders and the arbiter.

E. PLAN OF THE THESIS

Chapter II focuses on the reasons that MWDSs need police expeditionary capacities in the face of new types of security threats. The wickedness of this organizational problem is introduced, major stakeholders identified and observations from interventions in Kosovo, Afghanistan and Iraq are presented to support an argument about the current lack of police expeditionary capacities.

Chapter III introduces the state's perspective on the decision-making process with the use of decision theory. The state's perspective is framed as decisions about organizing police expeditionary capacities through either military organizations or police organizations. This chapter also provides an assessment of major sub-state stakeholders' suitability to perform these tasks.

Chapter IV analyzes ongoing dynamics between military organizations and police organizations using game theory. The game is modeled to reflect the dilemma faced by both organizations: their common interest in delivering security vs. their organizational self-interest. The game's outcomes are interpreted and explained in the context of common organizational practices and how they reflect a suitable and sustainable organizational solution mathematically captured by Nash point. This chapter requires that the reader understand the concepts and methods of game theory.

Chapter V discusses best organizational practices in the context of the outcomes and mathematically captured characteristics of suitable and sustainable organizational solutions. The hybrid organizational form is explained, and the example of gendarmerie-type organizations is presented. The chapter emphasizes the important role of an arbiter representing the state level of organization. The collaborative strategy of coping with problems is a critical factor for overcoming bureaucratic resistance at the sub-state level of organization from MOs and POs.

Chapter VI summarizes the research and provides recommendations to stakeholders involved in the process of organizing police expeditionary capacities, along with recommendations for further research.

II. POLICE EXPEDITIONARY CAPACITIES FROM THE PERSPECTIVE OF THE MODERN WESTERN DEMOCRATIC STATE

Chapter II focuses on the reasons that MWDSs need police expeditionary capacities in the face of new types of security threats. The wickedness of this organizational problem is introduced, major stakeholders identified and observations from interventions in Kosovo, Afghanistan and Iraq are presented to support an argument about the current lack of police expeditionary capacities.

A. THE NEW CHARACTER OF SECURITY THREATS

The organization of police expeditionary capacities by modern western democratic states is a wicked problem. According to Roberts, wicked problems have the following characteristics:

> 1) There is no agreement about "the problem." In fact, the formulation of the problem is the problem. 2) There is no agreement on a solution. In actuality, stakeholders put forward many competing "solutions" none of which have stopping rules to determine when the problem is solved. 3) The problem solving process is complex because constraints, such as resources and political ramifications, are constantly changing. 4) Constraints also change because they are generated by numerous interested parties who come and go, change their minds, fail to communicate, or otherwise change the rules by which the problem must be solved.[3]

Wicked problems often lack agreement among stakeholders about the causes of the problem and, in some cases, even whether there is any problem to be solved. Stakeholders' differing views about the problem territory make the problem identification and problem solving processes difficult, because, as Conclin says: "[W]hat 'the Problem' is depends on who you ask—different stake-holders have different views about what the problem is and what constitutes an acceptable solution."[4]

---

[3] Nancy Roberts, The course syllabus for her course on "Coping with wicked problems, Naval Postgraduate School, 2009.

[4] Jeff Conclin, "Wicked problems and social complexity," CogNexus Institute, http://www.cognexus.org/wpf/wickedproblems.pdf (accessed May 08, 2010), 7.

The most important stakeholder in the process of organizing police expeditionary capacities is the state, which represents the highest level of decision making. The other two major stakeholders are represented by sub-state level military and police organizations. Apart from intelligence organizations, military and police organizations are traditionally the major stakeholders in the state's monopoly on the legal use of force and the execution of state security operations.

The claim that organizing police expeditionary capacities is a wicked problem is supported by the observation that there is no agreement on the need for such capacities, the need for a new organizational solution, or what the best organizational solution would be. Kelly *et al.* argue that there is a lack of police expeditionary capacities and that the situation requires a new organizational solution.[5] On the other hand, Celeski says that U.S. military decision makers do not see such a need.[6] Current organizational practices demonstrate that MOs tend to use military personnel to execute policing, with questionable results. Sullivan calls for building police expeditionary capacities for counterinsurgency and stabilization operations.[7] Lutterbeck perceives a lack of effort to examine this problem, which explains the lack of available literature on the issue.[8] As the three major stakeholders - the state, MOs and POs - express differing opinions on this problem. This thesis examines their perspectives in order to provide better insights on this wicked problem.

The state's traditional purpose for having MOs and POs is to cover two basic categories of security threats: internal security threats and external security threats. Derek Lutterbeck writes,

---

[5] Terrence K. Kelly, Seth G. Jones, James E. Barnett II, Keith Crane, Robert C. Davis, Carl Jensen. *A Stability Police Force for the United States: Justification and Options for creating U.S. Capabilities*. (Santa Monica: RAND Corporation, 2009),http://www.rand.org/pubs/monographs/2009/RAND_MG819.pdf (accessed April 28, 2010), 1.

[6] Joseph D. Celeski, , Policing and Law Enforcement in COIN: the Thick Blue Line. The JSOU Press, Hurlburt Field, Florida, 2009.

[7] John P. Sullivan, *The Missing Mission: Expeditionary Police for Peacekeeping and Transnational Stability*. Small Wars Journal (May 9, 2007). http://smallwarsjournal.com/blog/2007/05/the-missing-mission-expedition/(accessed April 29, 2010).

[8] Derek Lutterbeck, , *Between Police and Military: The New Security Agenda and the Rise of Gendarmeries*, (Geneva: Sage Journals Online, 2004), http://cac.sagepub.com/cgi/reprint/39/1/45 (accessed April 28, 2010),63.

> Traditionally, security thinking and analysis have been dominated by two broad categories: challenges to a state's internal security and threats to its external security. While internal security has been understood in terms of criminal or otherwise disturbing activities within the boundaries of the state, threats to external security have been considered to arise first and foremost from aggressive behavior of other states.[9]

The traditional way of organizing for security used by MWDS, at least in the postcolonial era, is for MOs to deal with external security threats while POs deal with internal security threats. Modern western democratic states have developed laws and organizational measures to make these organizations effective and at the same time prevent them from abusing their special powers, their monopoly on the legitimate use of force.

Figure 1 shows categories of current internal and external security threats with representative examples. External security threats include threats generated by state actors (for example, interstate nuclear or conventional conflict, state sponsored insurgencies and terrorism) and threats generated by internal factors (for example, non-state actors involved in transnational terrorism, insurgencies, transnational organized crime). Internal security threats include domestic threats (domestic crime, insurgencies and terrorism) and threats generated by external factors (for example, transnational terrorism and organized crime).

9 Derek Lutterbeck, *Between Police and Military: The New Security Agenda and the Rise of Gendarmeries*, (Geneva: Sage Journals Online, 2004), http://cac.sagepub.com/cgi/reprint/39/1/45 (accessed April 28, 2010).

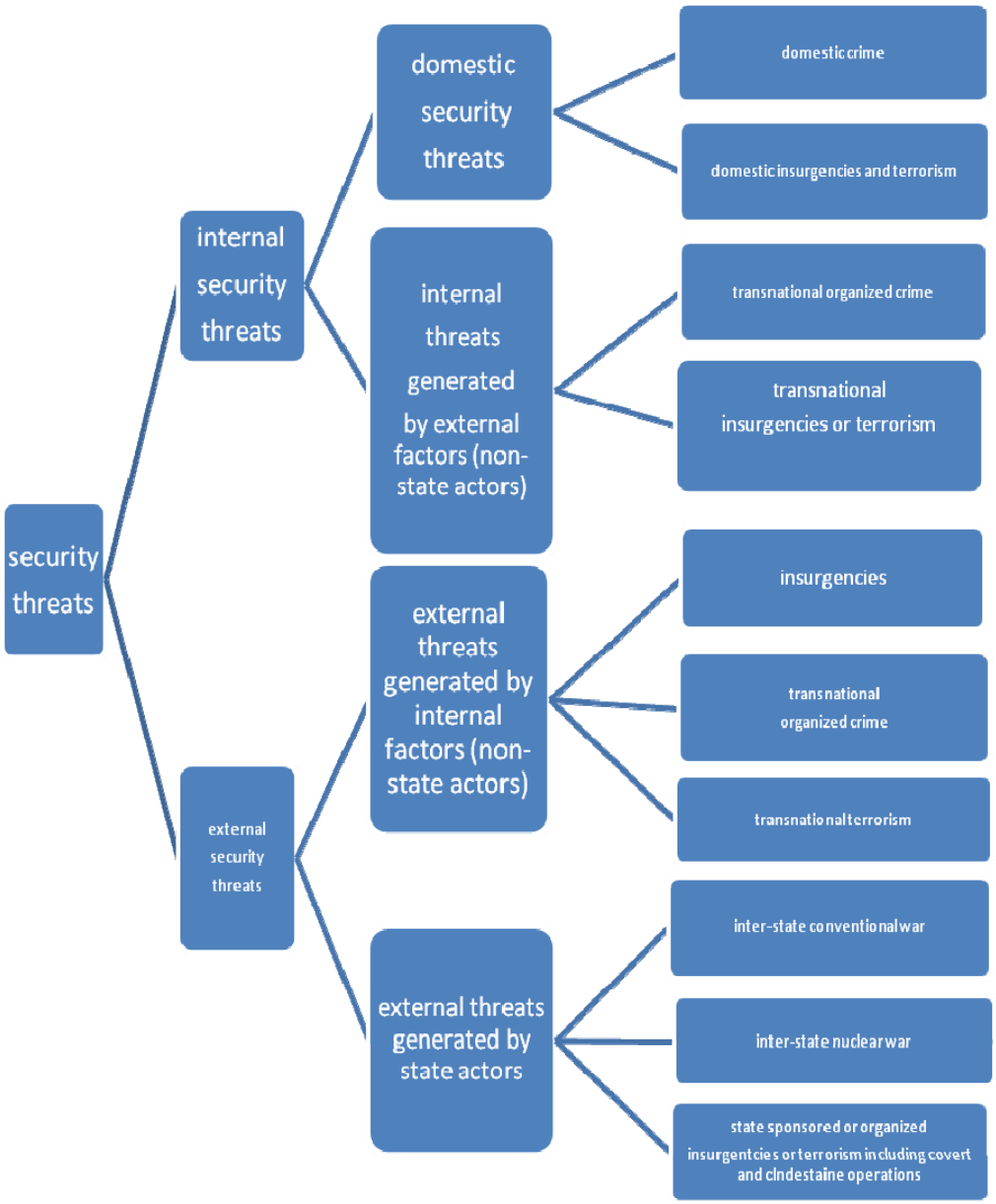

Figure 1. A hierarchical categorization of security threats facing modern western democratic states

Traditionally, militaries are organized to deal with external security threats, typically of a conventional nature, generated by state actors; police are organized to deal with internal security threats, typically generated by non-state actors. This security paradigm is reflected in the organizational design of MOs and POs. Military organizations are more centralized, hierarchical and formal, and less interactive with

civilian populations. Police organizations are flatter, with fewer vertical levels, less formal, and interact more with civilians. Historically, domestic and international laws put constraints on MOs and POs to prevent them from abusing their power. In the United States, the Posse Comitatus Act restricts military involvement in domestic affairs. Similar laws restrict POs in many ways on the national and international levels.

Under governed or failed states, a new set of factors challenge the suitability of the traditional way of organizing state security. These factors include non-state actors with transnational ambitions, the process of globalization, the spread of new technologies, and the establishment of international security organizations. According to John Robb in *The Brave New War*,

> The real threat, as seen in the rapid rise of global terrorism over the past five years, is that this threat is not another state but rather a super-empowered group. This group, riding on the leverage provided by rapid technology improvement and global integration, will remain the major threat to our way of life.[10]

Along with these processes comes a phenomenon that can be summarized as two basic categories: internal factors generating external security threats, and external factors generating internal security threats.

Internal factors generate external security threats are one aspect of the new reality. Modern western democratic states now face threats not only from state actors, but also from non-state actors with transnational political or criminal objectives who operate from an external territory and have the capability to harm MWDS on their own territory. Al Qaeda's 2001 attacks against the World Trade Center, organized from a sanctuary in Afghanistan, are an example. As Birnbaum writes:

Confronted by transnational armed groups, western democracies are tempted to wage pre-emptive wars. Colonomos highlights the novelty of this type of engagement. He goes on to explain that preventive war "reveals a change epitomized by September 11." It

[10] John Rob, The New Brave War: The Next Stage of Terrorism and the End of Globalization. New Jersey: John Wiley&Sons, Inc., 2007, 7.

has come to the fore at a time of global terrorism, in a world in which "the military are playing at being the police," and domestic and foreign policies have become as one.[11]

A second aspect of the new reality is that external factors generate internal security threats. Modern western democratic states are now challenged not only by domestic actors, but also by transnational organized crime with financial objectives and by transnational non-state actors with political objectives.

The common denominator for these two new phenomena is the presence of non-state actors with transnational ambitions and operational capabilities. The role of non-state actors affects the role of the population and the related role of policing. The more the population becomes a "center of gravity" of state security concerns and operations, the greater the importance of state policing capabilities.

B. SECURITY ORGANIZATION MISMATCH

Because of new organizational requirements and the unsuitability of the traditional organizational model for dealing with nontraditional security threats, there is a mismatch in MWDS security organizations. On the one hand, the traditional design does a good job of dealing with traditional security threats; on the other hand, the traditional design undermines the state's ability to deal effectively with new security threats.

In order to deal with both traditional and new types of security threats, MOs and POs have to adapt. The process of adaptation means that MOs have to build population-centric capabilities, and POs have to build enemy-centric capabilities. Examples of adaptation by MOs include the concept of U.S. Special Forces, the U.S. Marine Corps' Combined Action Program during the Vietnam War, use of military police in Iraq and Afghanistan to police the civilian population, psychological operations and civilian-military cooperation units. Adaptation results from counterinsurgency operation requirements, but also from the resulting response to requirements for stabilization and peacekeeping operations. Examples of adaptation by POs that built enemy-centric

[11] Ariel Colonomos, *"Le Pari de la Guerre", War Confuses Police with Military, by* Jean Birnbaum, guardianweekly.co.uk, May 8, 2009, http://www.guardianweekly.co.uk/?page=editorial&id=1057&catID=17 (accessed April 29, 2010).

capabilities include the emergence, after the Munich Olympic Games hostage crisis in 1972, of national police counterterrorist units like the German GSG9, Italian NOCS, Norwegian DELTA and Czech URN.

The rapid removal of repressive regimes by MWDS, as in Kosovo, Afghanistan and Iraq, reveals a new category of organizational mismatch with the current security paradigm, manifested by the lack of police expeditionary capacities. The next section examines the lack of police expeditionary capacities in more detail.

C. POLICE EXPEDITIONARY CAPACITIES IN MISMATCHED SECURITY ORGANIZATIONS

Mismatched security organizations make it challenging to organize necessary policing of civilian populations in states where MWDS have intervened. Interventions in Kosovo, Afghanistan and Iraq demonstrate a strategic need for, and critical lack of, deployable professional police among MWDS. The three cases share a common characteristic, which is a vacuum in basic state institutions, including police institutions, caused by the rapid overthrow of repressive regimes by MWDS. However, the ability of the intervening MWDS to fill the vacuum with their own police expeditionary capacities differed in the three cases.

Such security assistance is also called executive policing. Renata Dawn describes this relatively new security term:

> Unlike much peacekeeping jargon, executive policing is a fairly precise concept. It refers to the power and practice of law enforcement by international police within a particular territory. This power derives from the assumption by the UN of sovereign authority over the area (either all or a part of a state) and its practice from the establishment of a transitional administration.[12]

[12] Renata Dwan, *Executive Policing: Enforcing the Law in Peacekeeping Operations*. New York: Oxford University Press, 2002, 1.

In 1999, in the immediate post conventional phase of the invasion of Kosovo, the international community was able to deploy almost 5000 international police professionals to police a population of approximately two million inhabitants. Renata Dwan states,

> The UN Interim Administration Mission in Kosovo (UNMIK) was set up on 10 June 1999 by UN Security Council Resolution 1244. Authority for training a local police force was provided in a single sentence, which also provided *executive authority for a 4700-member UN Civilian Police Force* (the UNMIK Police).The sentence stated, that the responsibilities of UNMIK would include *maintain civil law and order, including establishing local police forces* and meanwhile through the deployment of international police personnel to serve in Kosovo.[13] [italics added for emphasis]

In 2002 and 2003, during the immediate post conventional phase of the invasion of Afghanistan, the international community was able to deploy 17 German police professionals to assist in building local police capacities for a population of approximately 30 million inhabitants. In his article on the rise of insurgency in Afghanistan, Seth Jones writes,

> State-building efforts were sparse in a *country that desperately needed law, order and institutions* capable of delivering basic services. As a result, the reach of the government remained largely limited to the capital. The capacity building and formalization of the Afghan security forces, including the Afghan National Army, was largely neglected until the emergence of the insurgency. The Afghan government was also unable to provide security outside of the capital. A major reason was the *inability of the U.S. government to build competent Afghan security forces, especially the police*. The result was a weak security apparatus that could not establish a monopoly of the legitimate use of force within the country. The police were not an international priority after the overthrow of the Taliban regime, and they received significantly less money and attention than the army. The United States declined to provide significant assistance to the Afghan police in the aftermath of the Taliban's overthrow, and handed police training over to the Germans. *By 2003*, however, U.S. officials at the State Department, Defense Department, and White House began to argue that the German effort was far too slow, trained too few police

[13] Renata Dwan, *Executive Policing: Enforcing the Law in Peacekeeping Operations*. New York: Oxford University Press, 2002, 86.

> officers, and was seriously underfunded. German assessments of progress in rebuilding the police noted that *17 German police officers*—men and women from both our federal and state police forces—are advising the Afghan Transitional Authority on this challenging task of crucial importance for the country's democratic future. The low level of resources, however, demonstrated that the Germans were not serious about police training.[14] [italics added for emphasis]

During the immediate post conventional phase of the 2003 invasion of Iraq, the international community was able to deploy only military units. Of these, military police units could only partly meet the serious need for local security among a population of approximately 30 million. Policing of the civilian population of Iraq was characterized by chaos and incompetence. Mathieu Deflem says,

> Initially most striking was the general lawlessness that erupted in Baghdad after the invasion of the city. Some of this violence damaged the police infrastructure, later contributing to impede the rebuilding of the civilian forces. Also, at the *time lawlessness had erupted, most Iraqi police and military had simply gone home.* Although U.S. officials had been informed about the likely breakdown of law and order in post-war situations, *military command did not count on continued unrest after the cessation of major combat operations*. The U.S. military appealed to Iraqi police to return to work, and although they were not allowed to carry weapons, many Iraqi police soon reported back to their stations. On April 14, 2003, joint patrols of Iraqi police and U.S. soldiers were first spotted in the streets of the Iraqi capital. But the *initial police presence produced considerable outrage among Iraqi citizens, as many of them were thought to be leftovers from the Ba'athist regime*. That there was some truth to this perception was most clearly shown in May 2003 when Zuhair al-Naimi, a Ba'athist loyalist and interior ministry official under Saddam Hussein, was appointed as the new police chief in Baghdad. Al-Naimi was forced to resign within a week because he refused to implement the new police procedures suggested by the United States.[15] [italics added for emphasis]

The inability of military police to police a civilian population without preparation for the task is illustrated by the experience of a law professor visiting Iraq in 2003.

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[14] Seth G. Jones, The Rise of Afghanistan Insurgency: State Failure and Jihad, International security, Belfer Center for Science and International Affairs, http://belfercenter.ksg.harvard.edu/files/IS3204_pp007-040_Jones.pdf. (accessed April 28, 2010), 22.

[15] Mathieu Deflem, *Policing Post-War Iraq: Insurgency, Civilian Police, and the Reconstruction of Society*, South Carolina College of Arts and Sciences, http://www.cas.sc.edu/socy/faculty/deflem/zpoliraq.html, (accessed April 28, 2010).

> A law professor's visit to an Iraqi police station in Baghdad in August 2003 illustrates well the kind of difficulties confronting the reorganization of Iraqi police. Dropping in unannounced in a Baghdad police station, *she found American military police, most of them between 18 and 20 years old*, and Iraqi police just sitting around, sweltering in the 130-degree heat. The young American lieutenant in charge summed up the situation succinctly: "There's no rule of law here... These Iraqis are all corrupt. They don't know what they're doing. They just beat suspects to get confessions out of them. They take bribes... They don't understand anything about law. There's never going to be law here in a million years.[16] [italics added for emphasis]

Although the situation was similar in Kosovo, Afghanistan and Iraq, and the incompetence of indigenous POs was predictable, the intervening powers did not handle these situations in the same manner in terms of the quantity, quality, and timing of deployed security personal. The following data describes the quantitative requirements for policing civilian populations:

> It turns out that the number of "world policemen" required is roughly proportional to the size of the population being protected or controlled. At the low end of the scale is the proportion of police officers required for day-to-day law enforcement duties among generally peaceful populations such as those in the United States. *Peaceful populations* require force ratios of somewhere between *1 and 4 police officers per 1000 residents*. The United States as a whole has about 2.3 sworn police officers per 1000 residents. Larger cities tend to have higher ratios of police to population.[17] [italics added for emphasis]

This thesis asserts that deployment of the quality and quantity of international police officers needed within the critical period contributed significantly to the prevention of insurgency (PREIN) in the case of Kosovo. In contrast, the failure of MWDS to deploy the necessary quality and quantity of international police officers in a timely fashion in Afghanistan and Iraq was a significant contributing factor in the development and growth of their insurgencies.

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16 Mathieu Deflem, *Policing Post-War Iraq: Insurgency, Civilian Police, and the Reconstruction of Society*, South Carolina College of Arts and Sciences, http://www.cas.sc.edu/socy/faculty/deflem/zpoliraq.html, (accessed April 28, 2010).

17 James T. Quinlivan, *The Painful Arithmetic of Stability Operations*. (Santa Monica: RAND Corporation, 2003) http://www.rand.org/publications/randreview/issues/summer2003/burden.html.(accessed April 29, 2010).

The argument that police expeditionary capacities for such operations are resource intensive and pose an actual organizational challenge support the comments by Dwan on executive policing.

> The second reason why there have been so few instances of executive policing is its *feasibility*. … The responsibility requires significant numbers of international police personnel with wide-ranging skills and experience. *Such personnel are already in short supply in many Western states* and, given the increasing dominance of crime and public order issues in domestic politics in Europe and North America, in demand in their home countries. The personal and financial implications of executive policing for international institutions and contributing states are therefore domestic as well as international political issues. Only in exceptional, emergency situations will states be convinced that it is in their interest to submit their own domestic order to further pressure in order to take on the burdens of the order of another state. This points to a second key element of the concept of executive policing: it is temporary, short-term measure taken by the international community to plug a serious domestic security gap.[18] [italics added for emphasis]

Decision making to organize police expeditionary capacities requires considering situational requirements (quality, quantity and time availability) and factors like financial and human resources and international and domestic law. Probably most importantly, the state has to decide which of the two major sub-state organizations, MOs or POs, is best to be tasked with building these capacities. To make the decision most likely to create an appropriate and sustainable organizational solution, the state needs to understand the perspectives of these two organizations. Terrence Kelly *et al*., in their study of stabilization police forces for the U.S., offer the following summary.

> There are several possible downsides. First, building a competent SPF would cost money, and *would require taking money from elsewhere in the U.S. government*. Second, establishing an SPF would likely *trigger bureaucratic resistance*. Creating the SPF in any agency will create *competition for authorities and funding*. Third, staffing an SPF using the hybrid option outlined [elsewhere in the study] could pose challenges. For

[18] Renata Dwan, *Executive Policing: Enforcing the Law in Peacekeeping Operations*. New York: Oxford University Press, 2002, 2.

> example, local police agencies might resist losing key police officers and units, such as SWAT teams.[19] [italics added for emphasis]

These concerns seem legitimate and reflect the ongoing dynamics between state and sub-state organizational levels. The next chapter examines these dynamics theoretically using the methods of mathematical modeling, and offers an interpretation of the outcomes to frame a subsequent discussion of organizational implications.

[19] Terrence K. Kelly, Seth G. Jones, James E. Barnett II, Keith Crane, Robert C. Davis, and Carl Jensen. *A Stability Police Force for the United States: Justification and Options for creating U.S. Capabilities*. (Santa Monica: RAND Corporation, 2009),http://www.rand.org/pubs/monographs/2009/RAND_MG819.pdf (accessed April 28, 2010), 2.

III. MATHEMATICALLY MODELING THE STATE AND MAJOR STAKEHOLDER PERSPECTIVES

A. OVERVIEW

This chapter introduces the state's perspective on the decision-making process with the use of decision theory. The state's perspective is framed as decisions about organizing police expeditionary capacities through either military organizations or police organizations. This chapter also provides an assessment of major sub-state stakeholders' suitability to perform these tasks.

Mathematical modeling is the main method used in this thesis to conceptualize how to organize the MWDSs' police expeditionary capacities. The outcomes of the modeling suggest guidelines that might be useful to strategic decision makers for resourcing and organizing police expeditionary capacities.

Chapter II describes why MWDSs need police expeditionary capacities, the traditional way of organizing to deal with security threats, and the major stakeholders involved in this process. The thesis now turns to framing the perspectives of three major stakeholders: the state, military organizations, and police organizations.

The perspective of the state's executive power is examined in this chapter using decision theory. Game theory is used to analyze the dynamics between MOs and POs. The outcomes of these games are analyzed and interpreted, and recommendations offered. The recommendations are then further examined using decision theory to model the final decision-making process from the state's perspective.

B. MODELING THE STATE PERSPECTIVE ON THE TRADITIONAL TWO ORGANIZATION OPTION WITH DECISION THEORY

This section builds on the assumption that MWDSs should organize their police expeditionary capacities to deal more effectively with internal factors that generate external security threats. Decision theory is one of "lenses" through which the state can view the problem territory.

> Decision theory, which is also called decision analysis, is a collection of mathematical models and tools developed in the twenties century to *assist people in choosing among alternative actions in complex situations*. In many cases the options we have are clearly defined and we also know the collection of consequences that may eventually occur, but we are uncertain exactly which of these outcomes will happen. Between the moment we act and the time the process concludes, there may be other forces affecting the action, forces over which we have no control. We may, however have *some information about the relative like hood of each outcome flowing from each action*."[20] [italics added for emphasis]

In the traditional way of organizing security capacities, the state has only two options: (1) rely on MOs, tasking them to build police expeditionary capacities; or (2) rely on POs, tasking them to build or provide police expeditionary capacities. Each of these options has a different probability of success, represented by outcomes.

Each of the state's options, (1) Task MOs and (2) Task POs, has two possible outcomes:

1. One outcome is an effective and sustainable organizational solution that contributes significantly to counterinsurgency (COIN) efforts, to the prevention of insurgencies (PREIN) efforts, and to the prevention of terrorist attacks on the state's own soil (see Figure 2).

2. The second outcome is an ineffective or unsustainable organizational solution that undermines the state's PREIN and COIN efforts and also fails to decrease the potential for terrorist attacks on the state's own soil.

The states two possible options and two possible outcomes, generates four possible action outcomes: action outcome #1 (task MOs – MOs succeed), action outcome #2 (task MOs – MOs fail), action outcome #3 (task POs – POs succeed), action outcome #4 (task POs – POs fail). These two state options combine with the two outcomes to generate four action outcomes as illustrated in Figure 2.

[20] Consortium for Mathematics and its Applications. *For All Practical Purposes: Mathematical Literacy in Today's World*. W.H. Freeman and Company, New York, 2009, 539.

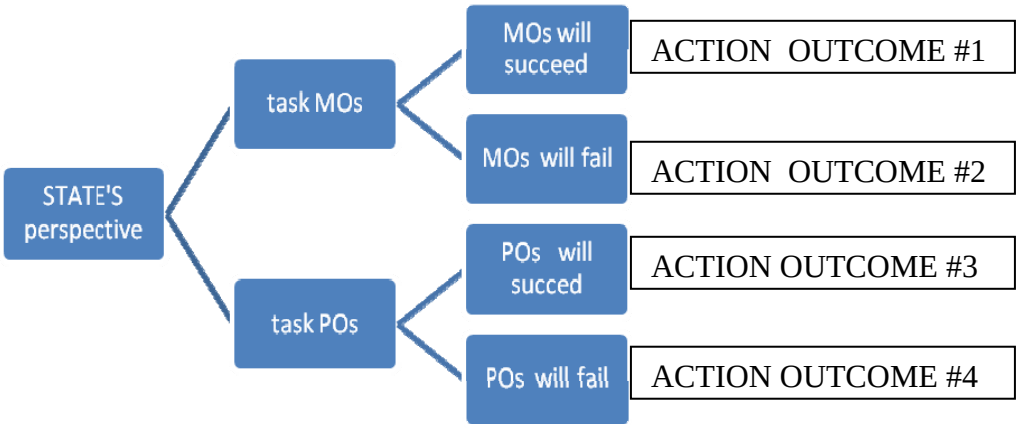

Figure 2. The state's perspective represented as a decision tree with two options (MOs versus POs) and two outcomes (success versus failure) for each option.

To evaluate the four action outcomes, it is necessary to estimate their probabilities.

> One guiding principle is always present: Determine as best as you can the probabilities at every stage for the various outcomes as well as the value, or *utility*, of these outcomes; once you have done this calculate the expected utility of each course of action and consider the strategy that yields the largest expected utility.[21] [emphasis in the original]

The determination of probabilities in this thesis reflect the author's judgment, supported by assessments of (a) knowledge, skills, and abilities, (b) organizational resources, including financial and human resources, and (c) organizational motives and incentives. Here the strengths and the weaknesses represent current positive and negative aspects (pros and cons) of organizing police expeditionary capacities as illustrated in Figure 3. Opportunities and barriers represent positive and negative potentials (pros and cons) for organizing police expeditionary capacities. All modified categories are structured as branches of positive aspects (pros) and negative aspects (cons) and further as branches of already existing potential (present) and future potential (future) for organizing police expeditionary capacities.

[21] Consortium for Mathematics and its Applications. *For All Practical Purposes: Mathematical Literacy in Today's World*. W.H. Freeman and Company, New York, 2009, 540.

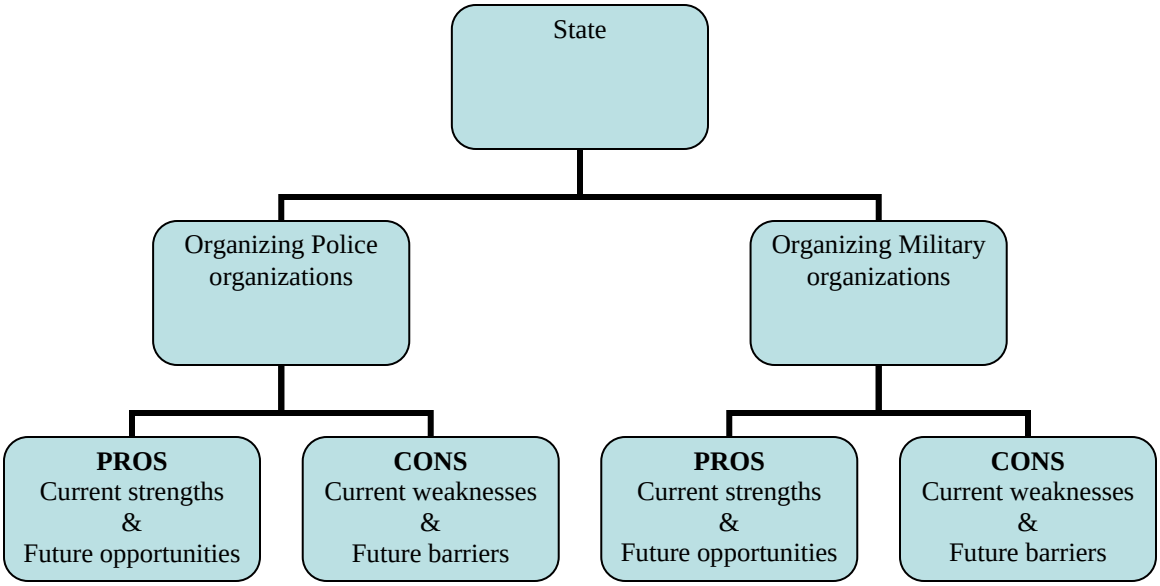

Figure 3. Structure of analysis using PROS and CONS with respect to strengths and future opportunities and weaknesses and future barriers for organizing police expeditionary capacities

In the next sections of this chapter, assessments of present weaknesses of MOs and POs are compared and further used as a basis for assessing future opportunities in terms of their organizational potentials to overcome their present weaknesses. Assessments of future opportunities of MOs and POs are also compared and serve as a basis for assessments of future barriers in terms of their potential to overcome present weaknesses with use of future opportunities. The structure and flow of this assessment is illustrated in Table 1.

Identify PROS		Identify CONS	
In the context of the Present situation	With respect to future potential	In the context of the present situation	With respect to future potential
What are the organizations' current strengths?	What are the future opportunities of the organization to take advantage of these strengths?	What are the organization's current weaknesses?	What are the organization's opportunities to address future barriers?
These questions are addressed in the subsequent sections of this chapter: Section C: Assessing Organizational Knowledge, Skills, and Abilities Section D: Assessing Organizational Resources Section E: Assessing Organizational Incentives and Motivations			

Table 1. A flow diagram of the author's assessments of the pros and cons with respect to the strengths and future opportunities and weaknesses and future barriers

C. ASSESSING ORGANIZATIONS' KNOWLEDGE, SKILLS AND ABILITIES

Although organizations may have incentives and resources, knowledge, skills, and abilities (KSAs) are necessary if they are to execute actions effectively. Failure to develop KSAs could result from a lack of opportunity to develop police expeditionary functions such as logistical support, combat skills, foreign languages skills and cultural awareness. Some knowledge can be acquired through education and training, but some requires on-the-job training, mentoring and real-life experience. These latter experiences are often difficult to acquire.

An assessment of this category is very important for estimating the probabilities of success or failure in deciding whether to task MOs or POs. Kelly *et al*. state that,

> Establishing security ultimately requires a combination of both military and policing efforts. SPF-like police forces are critical in conducting specialized patrols, countering organized criminal groups, performing

> crowd and riot control, and training and mentoring indigenous high-end police. *Police performed these tasks better than soldiers*.[22] [italics added for emphasis]

In terms of the quality of KSAs, POs of MWDS have the potential to provide the broadest spectrum of police functions for police operations overseas. In contrast, MOs can perform a very limited spectrum of functions to protect critical infrastructure and people. They are likely to produce a quick reaction force (in terms of combat support); SWAT (of questionable quality); patrolling; traffic control; and less serious forms of criminal investigation of limited quality compared to the potential of POs. Probably the best equipped MO components for policing the civilian population are the military police (MP). Even so, the potential of MPs is limited in regard to their competency to deal with serious organized crime, violent gangs, transnational organized crime, high standard SWAT, crowd and riot control, and community policing functions. Military police are organized and equipped to police a rather homogeneous military community with lower levels of serious organized crime and violence. According to Kelly *et al.,*

> [T]he major challenges for an MP SPF would be those of carrying out the principal tasks of an SPF: high-end law enforcement tasks. … [D]espite recent MP experiences in Iraq, the U.S. experience in a range of stability operations—such as Haiti, Somalia, and Iraq—*indicates that the military has struggled to perform civilian policing tasks and train foreign police over the past two decades*.[23] [italics added for emphasis]

MOs are not likely to attain the required quantity and quality of KSAs because these are more than a matter of good selection, education and training. They require on-the-job training and real-life experience. Experience, including experience in countering serious organized criminal groups, requires actually policing civilian populations. In the U.S., the Posse Commitatus Act restricts its MOs from such internal policing activities. Legal

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[22] Terrence K. Kelly, Seth G. Jones, James E. Barnett II, Keith Crane, Robert C. Davis, and Carl Jensen, *A Stability Police Force for the United States: Justification and Options for creating U.S. Capabilities*. (Santa Monica: RAND Corporation, 2009),http://www.rand.org/pubs/monographs/2009/RAND_MG819.pdf (accessed April 28, 2010).

[23] Ibid.

changes could eliminate such constraints, but the state would then risk a concentration of executive power in one institution that could undermine the democratic principle of the separation of power.

Military organizations are much better equipped than POs in logistic support and air ops capabilities. However, the weighting factor of this sub-aspect should not be considered significant, because MOs can be tasked to support police expeditionary capacities without being incorporated into the police expeditionary capacities.

Military organizations are much more capable than POs in combat skills, survival skills and the ability to operate in hostile environments. This factor's weight also should not be considered significant, because MOs can be tasked to support police expeditionary capacities. Furthermore, POs can increase their potential to operate and survive in hostile environments through training activities within their own state territory prior to deployment. Whether POs have the skills required to operate and survive in hostile environments is questionable; the answer depends of the extent of support provided by MOs. However, POs should never be expected to acquire knowledge and combat skills at the level of high standard SWAT units or VIP security units.

Military organizations usually have better assets, including educational facilities, personnel and budgets. They also usually have more time than police organizations to improve language skills and cultural awareness. However, the weighting factor of this component should not be considered significant, because MOs' assets can be used for education and training of police expeditionary capacities. Furthermore, POs can build these skills thorough educational and training activities within their own state territory and prior to deployment.

D. ASSESSING ORGANIZATIONAL RESOURCES

An organization might have KSAs, incentives and motivation, but lack the resources, and particularly the financial and legal resources, to create more resources. Resources may be impacted by legal and legislative constraints.

Military organizations and POs of necessity compete for state financial resources spent on security. Both organizations need financing to recruit, select and develop human resources and to perform their tasks well; thus they compete for the maximum budget.

Military organizations typically have more financial resources; they also require financial reserves to prepare for "what if" scenarios. In contrast, POs usually struggle with financial resources, and states tend to allocate only what is necessary to maintain an equilibrium between the internal security threats and the PO's capabilities.

Human resources depend on financial resources, perhaps more so for POs. Greater financial resources allow POs to select more highly qualified personal. As long as existing legal constraints block MOs from conducting police tasks among their domestic civilian populations, more financial resources for MOs will not necessarily produce the required standards of human resources through selection and training.

The most significant constraints for MOs in terms of acquiring necessary knowledge and skills for policing civilian populations are the legal constraints. As reflected in the Posse Comitatus Act and various laws in most MWDS, the principles of democratic governance seem to require measures to prevent the concentration of coercive power within one or a few state institutions.

E. ASSESSING ORGANIZATIONAL INCENTIVES AND MOTIVATIONS

An organization might have the KSAs and the resources, but lack the appropriate incentives or motivations for action. Poor incentives might be due to managers' or commanders' lack motivation. The common denominator of both military and police organizations in terms of their motives to build police expeditionary capacities is their interest in homeland security. Members and managers of both organizations share a common interest in their own security and the security of close associates who live in their own state territory. However, they also have personal and organizational interests that might conflict with their shared interest in homeland security.

The perspective of MO managers is characterized by their interest in command and control and in a sort of monopoly over operations overseas and dealing with external security threats. This characterization is based on the assumption that any organization wants to maintain or expand its importance and sphere of influence in order to command a maximum budget.

In contrast, apart from their interest in homeland security, managers of POs have little or no motivation to allocate human resources for operations overseas. They already struggle with human resources for internal security tasks and various international police functions (for instance, liaison officers for INTERPOL and other international police activities). Their primary task is dealing with internal security threats and, generally speaking, POs are short on human resources.[24]

For example, the Ministry of the Interior of the Czech Republic had to be pushed by the Ministry of Foreign Affairs to allocate even a small quantity of human resources for deployment in Kosovo as part of the United Nations Civilian Police (UN CIVPOL) in 1999 and 2000. At the top management level, the Ministry of the Interior agreed to allocate those human resources, but the process was resisted almost all the way down the PO command structure. Distribution of information about the opportunity to volunteer for UN CIVPOL missions was sabotaged by human resources departments in the various police sub-organizations, so information about the UN CIVPOL opportunity was spread predominantly by informal networks of police officers. [25]

Theoretically, there might be PO top managers who see a PO's overseas policing experience as contributing to the prevention of internal threats generated by external factors. Whether such a view would prevail over organizational self-interest is highly speculative. The author here characterizes POs' management as having a conflict of interest that significantly undermines the potential of POs to organize police expeditionary capacities.

F. CONCLUSIONS

The main advantages of tasking MOs to build their police expeditionary capacities are the MOs' strong incentives to deal with external security threats; their abilities to operate overseas with their current logistical and combat capabilities; and their control of large budgetary allocations from the state for external security threats.

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[24] Renata Dwan, *Executive Policing: Enforcing the Law in Peacekeeping Operations*. New York: Oxford University Press, 2002, 2.

[25] Author's personal experience

The main disadvantages of MOs are their low potential to acquire a requisite level of the quality police knowledge and skills that require experience interacting with a civilian population. Overcoming this problem would require significant legal changes that could undermine democratic principles.

The main advantages of tasking POs to build police expeditionary capacities is that POs have the requisite level of police knowledge and skills.

The main disadvantages of POs are that they lack incentives and motivation to devote the effort and especially the human resources to the task. To overcome this shortfall, extra financial resources would have to be allocated. However, this is unlikely to overcome PO management reluctance to allocate their human resources for overseas operations. The PO management wants instead to keep the police in their territory to perform the organization's primary tasks. In addition, POs lack logistical capabilities, combat skills, language and cultural awareness skills. The lack of KSAs is easier to overcome than the incentive problems, as the former can be acquired by education and training and with MO support and collaboration.

In both organizations, the phenomenon of collaboration is a very complicated part of the wicked problem territory. Collaboration is examined further in the models described in the next chapter.

In summary, this assessment suggests that the suitability and sustainability of an organizational solution might depend on the ongoing dynamics between MOs and POs in terms of their interests, concerns and perspectives. A better understanding of these dynamics should be a major concern of decision makers on the state level. To better understand the ongoing dynamics, the thesis turns to the methods of game theory and the perspectives of MOs and POs framed as mathematical games. In the next chapter, analysis and interpretation of game models serve as the final source of information for suggestions to decision makers looking at the problem space through the lens of decision theory.

IV. ANALYSIS OF MAJOR STAKEHOLDERS PERSPECTIVES USING GAME THEORY: "PROTECTORS' DILEMMA"

A. INTRODUCTION

Chapter IV analyzes ongoing dynamics between military organizations and police organizations using game theory. The game is modeled to reflect the dilemma faced by both organizations: their common interest in delivering security vs. their organizational self-interest. The game's outcomes are interpreted and explained in the context of common organizational practices and how they reflect a suitable and sustainable organizational solution, which is mathematically captured by Nash point.

This chapter requires that readers be familiar with the concept and methods of game theory. Game theory provides an analytical method for examining the dynamics between major sub-state stakeholders (players) who can simultaneously compete, cooperate, or both compete and cooperate to generate organizational solutions. It also provides information about which of the players' main strategies are more rational and why. According to the Consortium of Mathematics and its Applications a conflict arises whenever two or more individuals, with different values, compete to try to control events. Game theory uses mathematical tools to study situations involving both conflict and cooperation.[26] In the modeled game presented in this thesis, players' conflicts of interest are examined. Players share a common interest in the security of their homeland; this common interest, however, conflicts with their differing organizational interests.

The analysis and interpretation of the outcomes of the modeled game serve as supporting information within the decision-making process. The validity and usefulness of such suggestions are limited by the author's ability to capture the examined problem territory. Capturing a problem territory with a game theory model depends mainly on determining the players' standpoints and preferences, their main strategies, and the ordinal values and outcomes of combining their main strategies.

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[26] Consortium of Mathematics and its Applications. *Principles and Practice of Mathematics.* Springer-Verlag, New York, 1997, 467.

> The players in a game, who may be people, organizations, or even countries, choose from a list of options available to them—that is, courses of actions they might take—that are called strategies. The strategies chosen by the players lead to outcomes, which describe the consequences of their choices. We assume that players have preferences for the outcomes: they like some more than others.[27]

The general structure of the author's estimates are described in the previous chapter. In this chapter, numerical and graphical outcomes of the modeled game are further analyzed using game theory. These outcomes are interpreted in the context of the problem territory. Conclusions derived from these interpretations are used to frame recommendations on the organizational aspects of police expeditionary capacities.

B. DETERMINATION OF PLAYERS

The game is modeled as a game played between two players: military organizations and police organizations. These two players represent major sub-state stakeholders in the process of organizing and deploying police expeditionary capacities. The sub-state stakeholders share a common interest in the security of their homeland that reflects part of their private and organizational interests. They also have different organizational self-interests that conflict with their common interest in homeland security. This conflict of interest is elaborated in the following discussion of the players' standpoints and preferences.

C. PLAYERS' STANDPOINTS AND PREFERENCES

Player's standpoints and preferences reflect conclusions derived from their evaluation of the pros and cons from a decision theory perspective (the state's perspective). The qualitative assessment in the previous analysis points to the most important pros and cons, and to the potential for conflicting interests, summarized as the standpoints that shape the players' basic assumptions in the modeled game.

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[27] Consortium of Mathematics and its Applications. *Principles and Practice of Mathematics.* Springer-Verlag, New York, 1997, 467.

The MOs' standpoint is characterized by a tendency to keep their financial resources and their monopoly over security operations overseas under their command and control. Military organizations recognize external security threats generated by internal factors, and they understand their own limits in producing the required quality of expeditionary police capacities. Military organizations would also appreciate POs allocating some of their human resources for overseas operations that would fall under the MOs' command, control and budgetary authority for dealing with external threats. Military organizations understand that they have significant constraints in terms of acquiring the required level of police quality within their organizations. They might be able to build police capacities of the required quality if the state were to change its laws so they could gain experience by policing civilian population within their own countries.

The POs' standpoint is characterized by a tendency to reserve their human resources and financial resources for their primary task, which is dealing with internal security threats. Police organizations, overwhelmed by their own internal security agenda, want to keep their human resources so they do not fail in their primary task. Police organizations also understand that MOs need assistance with overseas policing in the form of some valuable PO human resources. Police organizations understand the relationship between external security threats generated by internal factors and internal security threats generated by external factors. Police organizations could provide more human resources or build new organizations for expeditionary policing if MOs would share some of their financial resources and access to their educational institutions.

Both players know that only POs can provide the required level of quality for expeditionary police, as MOs cannot under current law conduct complex police tasks in their own countries. Both players also recognize that the state can expedite their pursuit of quality human resources to police civilians overseas.

To reflect these standpoints, a partial sum game without communication is modeled. The game, called "Protectors' Dilemma," models a situation prior to the state's decision about a suitable and sustainable organizational solution for police expeditionary capacities. The hypothetical negotiation table reflects the state's decision-making process by arbitration initiative in terms of a suitable and sustainable organizational solution.

The game assumes that both players are rational and value their common interest in the security of their homeland more than they value their own organizational self-interest. They thus have a prevailing motivation in their common interests in homeland security, which means that both players understand the relation between internally generated external security threats (terrorism, insurgencies, crime within other states) and externally generated internal security threats (transnational terrorism and criminal groups using weak and failed states as sanctuaries). The game also assumes that both players understand how MOs are limited in building their own quality police expeditionary capacities. The players' organizational self-interests are also considered; these play a significant role in the evaluation of the outcomes of the modeled game. The players' dilemma reflects the conflict between their common interest and their organizational self-interest.

D. PLAYERS' STRATEGIES

Each player has two main strategies reflecting their standpoints. Police organizations can use either A-strategy or B-strategy, while MOs can use either C-strategy or D-strategy. Combining one player's two strategies with the two strategies of the other player generates four possible outcomes for each player.

The PO's A-strategy and B-strategy are described as follows:

A-strategy: Provide valuable human resources. This represents the prevailing motivation to achieve the common interest in homeland security by providing the PO's human resources for use in operations overseas. It also reflects the will of POs to risk shortfalls in the human and financial resources used for their primary task (dealing with internal security threats).

B-strategy: Resist providing valuable human resources. This represents the prevailing motivation of organization self-interest in their primary task of dealing with internal security threats. It also reflects their lack of faith that internal security threats generated by external factors would decrease if POs provide their own resources to help deal with external security threats generated by internal factors.

The MO's C-strategy and D-strategy are described as follows:

C-strategy: Share financial resources and other assets (educational and training institutions) and give up part of their status and monopoly on security operations overseas. This represents the prevailing motivation to support the common interest by sacrificing some financial resources for dealing with external security threats, and accepting a decline in the status of the organization.

D-strategy: Resist sharing financial resources and other assets (educational and training institutions) and protect their monopoly on security operations overseas. This represents the prevailing motivation of organizational self-interest; the risks are that conflicts will be protracted and that there will be a negative impact on internal security because external factors generate internal security threats.

1. Combination of Strategies and Their Outcomes

Combining each player's two strategies with the two strategies of the other player generates four different outcomes for each player. The POs' A-strategy when combined with MOs' C-strategy and D-strategy provides two different outcomes (AC-outcome and AD-outcome). The POs' B-strategy when combined with MOs' C-strategy and MOs' D-strategy also provides two outcomes (BC-outcome and BD-outcome).

		MO's	MO's
		C-strategy	D-strategy
PO's	A-strategy	AC	AD
PO's	B-strategy	BC	BD

Table 2. Table of outcomes

The evaluation of outcomes reflects players' opinions on whether a common interest in their homeland security would be achieved, and whether their own and the

other player's organizational self-interests would be achieved or harmed. Numerical interpretations of these outcomes are provided in the following section.

E. PLAYERS' ORDINAL VALUES OF OUTCOMES

The numerical interpretation of the outcomes is represented by an ordinal scale of natural numbers from one to four (1, 2, 3, 4) with one representing the worst possible outcome and four representing the best possible outcome. These ordinal values reflect the author's personal judgment. Tables 3 and 4 show the ordinal values from each of player's perspective.

Outcomes	Ordinal value	Explanation
AC	4 - the best	PROS: common interest met; human resources sacrificed but loss is compensated with financial resources sacrificed by MOs
AD	3 - the second best	PROS: common interest met CONS: human resources sacrificed and no resources are sacrificed by MOs which means no compensation
BC	1 - the worst	CONS: common interest not met; extra resources obtained because MOs sacrifice their financial resources
BD	2 - the second worst	CONS: no extra resources obtained PROS: common interest partly met

Table 3. Ordinal values assigned to represent the POs' perspectives on the possible outcomes of the four strategy combinations

Outcomes	Ordinal value	Explanation
AC	3 - the second best outcome	PROS: common interest met CONS: sacrifice resources and monopoly status
AD	4 - the best outcome	PROS: common interest met and nothing sacrificed CONS: neither resources or monopoly status sacrificed
BC	1 - the worst outcome	CONS: common interest not met; sacrifice resources without reciprocity from POs
BD	2 - the second worst outcome	CONS: common interest not met PROS: neither resources neither monopoly status sacrificed

Table 4. Ordinal values assigned to represent the MOs' perspectives on the possible outcomes of the four strategy combinations

As Table 3 shows, the best outcome from the PO perspective is the AC- outcome. This outcome reflects satisfaction with the potential to achieve the common interest in homeland security and with the other player's decision to share financial and educational assets. The POs do not lose much, because their loss of human resources will be compensated with financial resources that will allow them to acquire more human resources. In addition, POs can see the potential for a decrease in internal threats generated by external factors.

As Table 4 shows, the best outcome from the MO perspective is the AD-outcome. This outcome reflects satisfaction with getting the desired human resources from POs without paying the price of sharing MO financial resources and educational assets or relinquishing MO monopoly on overseas operations.

Table 3 shows that the second best outcome from the PO perspective is the AD-outcome. This outcome reflects satisfaction from the potential to achieve the common interest in homeland security and from the other player's decision to share resources. The POs suffer an uncompensated loss of the human resources they provide for overseas operations, but POs can see the potential decrease in internal threats generated by external factors.

Table 4 shows that the second best outcome from the MO perspective is the AC-outcome. This outcome reflects satisfaction from the potential to achieve the common interest in homeland security. They lose some financial resources, share their own educational assets, and give up their monopoly on overseas operations.

The second worst outcome from the PO perspective is BD (Table 3). This outcome reflects dissatisfaction because the common interest in homeland security would not be met, but at least MOs would not sacrifice their resources and unity of command and control. The POs would not participate and resist the process, as POs do not want to undermine MO capabilities.

The second worst outcome from the MO perspective is the BD-outcome (Table 4). The common interest would not be met, because the PO resists providing human resources, but MOs would not sacrifice their own financial resources. Thus, the BD-outcome would not undermine the MO ability to deal with external threats generated by internal factors using their own (perhaps limited) capacities.

Table 3 shows that the worst outcome from the PO perspective is the BC-outcome, because the common interest in homeland security would not be met and the MOs' allocation of some financial resources would undermine their capability to deal with external security threats generated by internal factors.

The worst outcome from the MO perspective, shown in Table 4, is the BC-outcome, because the common interest would not be met and MOs' allocation of some financial resources would undermine MO capability to deal with external security threats generated by internal factors.

		MO's C - STRATEGY	MO's D - STRATEGY
PO's	A - STRATEGY	4 , 3	3 , 4
PO's	B - STRATEGY	1 , 1	2 , 2

Table 5. Ordinals values of both players reflecting author's personal judgment in the matrix

F. ANALYSIS OF OUTCOMES

This section analyzes the outcomes of the modeled game using established game theory methods: matrix analysis, graph analysis, and an analysis of strategic moves.

1. Matrix Analysis

The matrix analysis indicates whether the modeled games have a dominant strategy and a Nash equilibrium.

	MO's C – STRATEGY Common interest	MO's D – STRATEGY Self interest		
PO's A – STRATEGY Common interest	4, 3	3, 4	3	Maxi-min
PO's B – STRATEGY Self interest	1, 1	2, 2	2	
	1	2		
		Maxi-min		

Table 6. Analysis of modeled game matrix

This modeled game has a Nash equilibrium represented by the combination of AD strategies with outcome: 3, 4. The players' dominant strategy is represented also by the combination of AD strategies with outcome: 3, 4. The likely outcome of the game is 3, 4. Thus, the most likely outcome of the game without communication is AD: 3, 4. However, game theory also offers a method to examine the likely outcome when the game is played with communication or when there is potential for arbitration.

2. Graph Analysis

Graph analysis provides information about the players' Pareto optimal line and the Nash point.

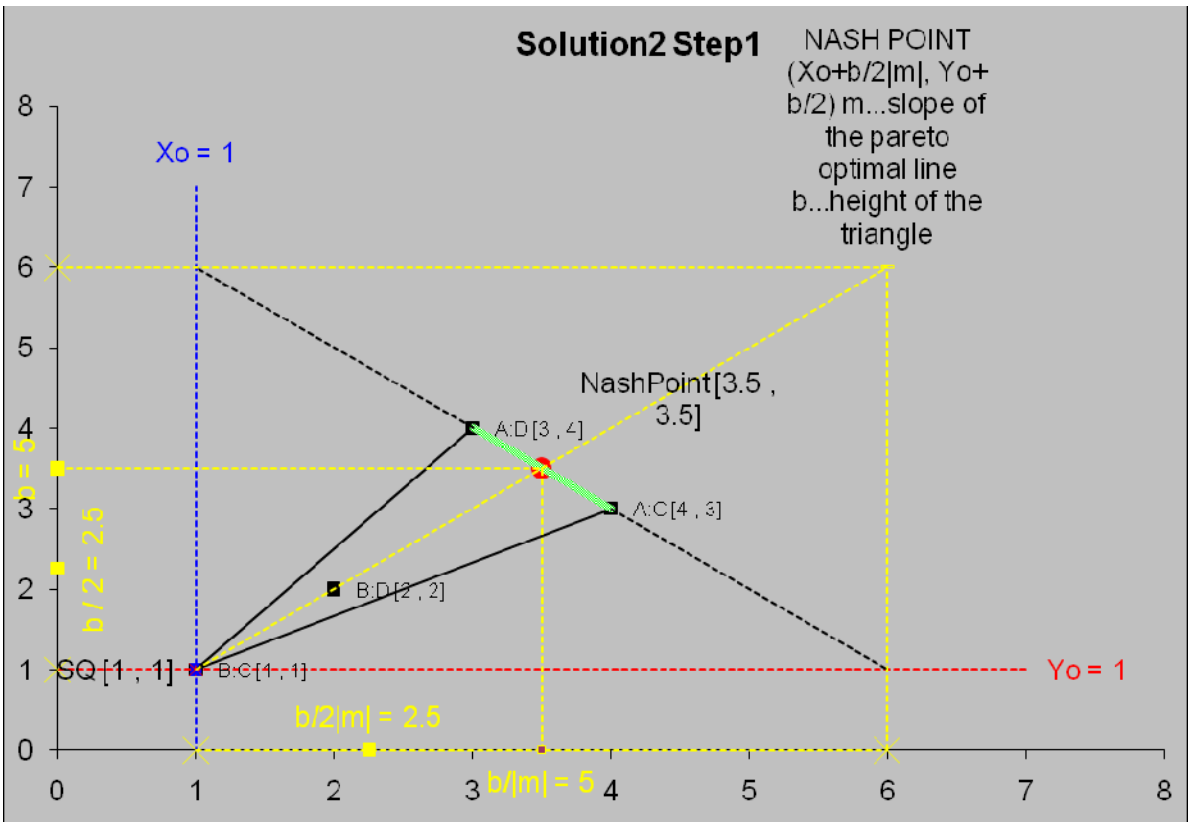

Figure 4. Graph analysis

The players' security levels, Pareto line, Pareto optimal, and Nash point[28]

This modeled game is Pareto optimal between the AD (3, 4) and AC (4, 3) outcomes. The Nash point is: 3.5, 3.5 which is a points on the Pareto optimal line.

The Pareto optimal line represents the hypothetical zone for an arbitration process. The process of arbitration requires communication, an arbiter and a Nash point representing the hypothetically optimal solution.

3. Analysis of Strategic Moves

The following analysis examines the case where the players' strategic moves (first move, threat, promise, or combination) result in their achieving the best possible

[28] Miroslav Feix, *Game Theory: Toolkit and Workbook for Defense Analysis Students*.(M.S. thesis, Naval Postgraduate School, 2007).

outcomes. An analysis of strategic moves reveals that POs have a threat, MOs have a first move as their most significant strategic move, and neither player has any other significant strategic move (promise or combination).

MO first move: MO wants PO to play A-strategy, and that is why MO moves first with C-strategy

If MO C then PO A with outcome: 4, 3.

If MO D then PO A with outcome: 3, 4.

MO can secure likely outcome by making first move D, which is best outcome 3, 4.

PO threat: PO wants MO to play C-strategy and that is why PO threatens the MO's D-strategy

PO threat to MO's D-strategy, by playing B-strategy instead of A-strategy, would make MO change from D-strategy to C-strategy with outcome: 4, 3.

Normally, if MO would play D-strategy, then without the use of threat, PO would play the A-strategy with outcome: 3, 4. This eliminates AD outcome: 3, 4 and ensures BD outcome: 4, 3; which is the most likely outcome if the players play rationally. For the purpose of this thesis, playing rationally means trying to achieve the highest possible outcome. This outcome would be the best outcome for PO and the second best outcome for MO.

However, interpretation of the outcomes analysis, when combined with observations of real practices reveals that players can play rationally or irrationally and with pure or mixed strategies.

G. INTERPRETATION OF MODELED GAME OUTCOMES

1. Interpretation of Matrix Analysis

The matrix analysis of outcomes reveals that the most likely outcome is a combination of A-strategy and D-strategy: AD (3, 4). This is supported by the analysis of dominant strategy and Nash equilibrium. Practically, this means that the POs would initially provide their valuable human resources in order to increase the potential of the state to deal with external security threats generated by internal actors. The MOs would initially keep their financial resources because they assume that the POs will provide the required human resources even without compensation, or they assume that this compensation would come from the state's budget, giving MOs the best possible outcome. This outcome seems mathematically stable, as reflected by the Nash equilibrium. Such outcomes of the game also capture common practices of many MWDS.

However, the stability of the outcome assumes that the prevailing motivation of the POs is their common interest in their homeland security over organizational self-interests (their understanding that external factors generate internal security threats) and that the game is played without communication. When the possibility of communication is introduced and the sustainability of the prevailing motivation in the common interests of POs is questioned, then game analysis provides further possible outcomes as the use of strategic moves or mixed strategies is introduced.

2. Interpretation of Graph Analysis

The graph analysis reveals that a Pareto optimal line is between point AD, with a game value of 3, 4, and point AC, with a game value of 4, 3. The Pareto optimal represents the area in which the arbitration process can most likely come up with sustainable solution, a fair and mutually acceptable outcome. This hypothetically optimal outcome is represented by the Nash point: 3. 5, 3. 5, which is located on the Pareto optimal line. The Nash point is hypothetical, and, in order to get closer to this outcome, it requires compromises by both organizations and probably also the involvement of an arbiter. The POs would have to compromise with respect to their expectations of financial

compensation for their lost human resources. The MOs would have to compromise with respect to sharing their financial resources, educational and training capacities, and their command and control monopoly in dealing with external security threats.

3. Interpretation of the Strategic Moves Analysis

The analysis of strategic moves reveals that MOs have the first move and POs have a credible threat. The MOs would most likely use D-strategy and want POs to use A-strategy with a likely outcome of 3, 4, which represents the best possible outcome for MOs. This means that MOs resist sharing their financial resources and also resist challenges to their monopoly on dealing with external security threats.. MOs rely on the prevailing common interest in PO's motivation to provide their human resources without compensation. If MOs decide to use their first move and use D-strategy, then POs will most likely respond with an A-strategy. This reflects the current situation in which POs provide human resources up to a certain level without financial compensation from MOs.

This most likely scenario, supported by a Nash equilibrium, is problematic insofar as POs obviously consider this their second best outcome, based on the assumption that their prevailing motivation is the common interest. The POs would obviously rather achieve outcome 4, 3, represented by their A-strategy in combination with MOs' C-strategy. This means they provide human resources, but with reasonable compensation from the MOs' budget that allows POs to acquire more human resources. In reality, POs do provide some human resources without compensation, but they can give only a limited amount. [29]

When POs reach the point when they cannot afford to provide more human resources, the most likely scenario is that they will use a threat as their strategic move to change the situation. The analysis suggests that their threat should be considered credible. It is represented by changing their strategy from A-strategy (provide human resources) to B-strategy (resist providing human resources) if the MOs are unwilling to play their C-

[29] Renata Dwan, *Executive Policing: Enforcing the Law in Peacekeeping Operations*. New York: Oxford University Press, 2002, 2.

strategy (sharing MOs' financial resources) and insist on playing D-strategy (resisting sharing MOs financial resources). The MOs, as a rational players, should recognize the threat of POs as credible and change from D-strategy to C-strategy with outcome 4, 3.

In reality, MOs can decide to ignore or accept the threat of POs and irrationally play their D-strategy. The POs in this situation are forced to execute their threat and resist providing human resources without compensation; this leads to BD-strategies with outcome: 2, 2. This is the second worst possible outcome, which is out of the Pareto optimal line, generating a suboptimal outcome. MOs who keep their financial resources would rather "build their own" expeditionary capacities. This is evident in the efforts of military police, special operations forces, and other military units that conduct policing or train and mentor indigenous police rather than provide their own financial resources to compensate for POs losses. The suboptimal outcome also reflects the questionable quality of police capacities generated within MOs and the problem of effectively coping with internally generated external security threats. On the other hand, from the POs' perspective, this suboptimal outcome reflects the POs' problem of coping with externally generated internal security threats that are, in such situations, poorly addressed by MOs. Renata Dwan refers to this suboptimal outcome in discussing executive policing.

> The personal and financial implications of executive policing for international institutions and contributing states are therefore domestic as well as international political issues. Only in exceptional, emergency situations will states be convinced that it is in their interest to submit their own domestic order to further pressure in order to take on the burdens of the order of another state. These points to a … key element of the concept of executive policing: *it is a temporary, short-term measure* taken by the international community to plug a serious domestic security gap.[30] [italics added for emphasis]

Because of the POs' threat, MOs may decide to (a) provide financial resources (rational players' move with AC-outcome of 4, 3, which is on the Pareto optimal line); or (b) arbitrate a solution (rational players move motivated by Nash point with potential outcome of 3.5, 3.5); or (c) resist providing their financial resources and build their own

[30] Renata Dwan, *Executive Policing: Enforcing the Law in Peacekeeping Operations*. New York: Oxford University Press, 2002, 2.

police expeditionary capacities (with BD-outcome of 2, 2, which is suboptimal). This MO move with a suboptimal outcome is discussed by Joseph Celeski.

> Today, the U.S. military could be required to perform policing law-and-order duties as result of the Pentagon Directive No. 3000, Military Support for Stability, Security, Transition, and Reconstruction (SSTR) Operations, dated 28 November 2005. Under the mandates and requirements of international law and now within U.S. doctrine, American military forces will potentially be organized into constabulary-like units, or may form indigenous or irregular constabulary units, within the security line of operations.[31]

This approach of MOs represents the suboptimal BD-outcome of 2, 2, which is a result of the executed threat of POs and the irrational move of MOs.

However, MOs realize that BD-outcome 2, 2 is suboptimal (as a result of MOs irrational move) and that it would be beneficial to begin an arbitration process and try to achieve some Pareto optimal outcome, optimally the Nash point. The MOs tendency to start an arbitration process is illustrated by a research project conducted by RAND Arroyo Center's Strategy, Doctrine, and Resources Program, and sponsored by the U.S. Army, entitled *A Stability Police Force for the United States*.[32]

H. CONCLUSIONS

The analysis of the outcomes suggests that there is a hypothetically fair outcome represented by a Nash point (with value of the game of 3.5, 3.5). This hypothetical outcome indicates the characteristics and requirements of a sustainable organizational solution. The characteristics of this solution requires compromises on MO and PO interests, falling between their interpretation of the ordinal values of 4 and 3 and represented by a Nash point with ordinal value: 3.5. This solution requires starting to communicate, and it would involve an arbiter who understands the major sub-state stakeholders conflicting interests.

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[31] Joseph D. Celeski, *Policing and Law Enforcement in COIN: the Thick Blue Line*. The JSOU Press, Hurlburt Field, Florida, 2009.

[32] Terrence K. Kelly et al., *A Stability Police Force for the United States: Justification and Options for creating U.S. Capabilities*. (Santa Monica: RAND Corporation, 2009),http://www.rand.org/pubs/monographs/2009/RAND_MG819.pdf (accessed April 28, 2010).

The conflicting interests in the case of POs is caused by a lack of human resources and the tendency to keep personnel for primary PO tasks focused on internal security threats. The MOs want to protect their financial resources and maintain their monopoly on dealing with external security threats. The arbiter's task is to find an organizational solution that compromises their organizational-self interests. The MOs need to compromise on sharing financial resources, their monopoly status, and the unity of command and control over external security threats. The POs need to compromise on providing human resources.

Those suggestions, together with insights gained from observing best organizational practices, provide the potential to capture the characteristics of the Nash point. They require searching for a solution that involves more than just police and military organizations. An organizational solution limited by two basic options (either police or military) would not likely reflect the Nash point (3.5, 3.5) and would likely to oscillate between AD-outcome (4, 3) and BD-outcome (2, 2). This is because the AD-outcome (4, 3) is so dominant in the case of a low need for police expeditionary capacities, and the BD-outcome (2, 2) is such a natural reaction of POs in situations where they cannot provide any more resources and MOs play irrationally.

Observation of best organizational practices suggests considering a third, hybrid option. The hybrid organizational solution is based on observations of gendarmerie-type organizations. Gendarmerie-type organizations have several characteristics that reflect a Nash point in terms of the compromises of MO and PO organizational self-interest; as such, it should also inspire the arbiter and major sub-state stakeholders involved in reorganizing police expeditionary capacities. The next chapter describes in more detail the characteristics of gendarme-type organizations and their relationship to the Nash point.

V. DISCUSSION

Chapter V discusses best organizational practices in the context of the outcomes and the mathematically captured characteristics of suitable and sustainable organizational solutions. The hybrid organizational form is explained, and the example of gendarmerie-type organizations is presented. The chapter emphasizes the important role of an arbiter representing the state level of organization. The collaborative strategy of coping with problems is emphasized as a critical factor for overcoming bureaucratic resistance at the sub-state level of organization from MOs and POs. As a last section of this chapter is presented an international potential for organizing police expeditionary capacities.

A. BEST OBSERVED ORGANIZATIONAL PRACTICES: GENDERMARIE TYPE ORGANIZATIONS

Gendarmeries are a type of organization with several characteristics captured by the Nash point in terms of the compromises of MO and PO self-interests. A hybrid organizational solution is a solution between the ideal type police and military solutions, according to Derek Lutterbeck.[33] In this thesis, the term "hybrid" indicates that the gendarmerie-type of organization instantiates a compromise corresponding to the numerical solution of 3.5 discussed in Chapter IV, which lies between the ordinal values of 3 and 4. Lutterbeck also refers to "intermediary, gendarmerie-type" or "paramilitary, security forces." He captures their hybrid character as follows.

> Representing a continuation of military or quasi-military presence in domestic security, their existence is of course at odds with one of the basic principles — and indeed achievements — of the modern nation-state, at least in its liberal-democratic form: the separation between police and military. As militarized police forces, they are also often associated with authoritarian or repressive tendencies, and are seen as an at least potential threat to civil liberties. In the following, however, *it is argued that despite, or actually because of, their anomalous status, such intermediary forces have gained tremendously in importance over recent years*. Precisely because they combine the characteristics of police and military forces,

[33] Derek Lutterbeck, *Between Police and Military: The New Security Agenda and the Rise of Gendarmeries*, (Geneva: Sage Journals Online, 2004), http://cac.sagepub.com/cgi/reprint/39/1/45 (accessed April 28, 2010).

> they have come to play an increasingly salient role in two of the main areas of the post-Cold War security agenda: in the field of border control, where they are being mobilized to counter various transnational challenges to security, and that of peace support operations, where they are seen as an increasingly important strategic asset in post-war reconstruction efforts.[34] [italics added for emphasis]

Gendarmerie type organizations have characteristics that might facilitate the arbitration process in terms of their suitability for requirements represented by a Nash point. They also represent the organizational form that is more optimal for overcoming organizational misfit generated by confronting externally generated internal security threats and internally generated external security threats.

Gendarmerie-type organizations are a solution that lies "between the police and military" in terms of their capabilities, status and affiliation with a Ministry of Interior, Ministry of Defense, or both. Their most significant characteristic is that their task capabilities and missions allow them to conduct a broad spectrum of police duties among civilian populations. They thus gain critical experience denied to traditional MOs in MWDS. At the same time, these organizations perform tasks that allow them to operate in more hostile situations than typical civilian police. Thus, Lutterback writes,

> It is difficult to make generalizations about the typical tasks of such gendarmerie-type of paramilitary forces, which may include practically any area of internal security or policing. ….. [I]t can be argued that the duties of gendarmeries tend to include those types of threats or situations which are characterized by a higher degree of hostility or 'instability' than 'ordinary' policing usually involves. Dealing with serious internal disturbances, riot control or combating terrorism, for instance, are typical functions of paramilitary forces. In a sense this too can be seen as a reflection of *their intermediary status*, in that such challenges are often considered to call for *a more muscled and robust response than ordinary (i.e. civilian police) police force are able to provide, but for which the use of the regular armed forces is usually not considered appropriate either* (which is not to say that the latter might not occasionally be deployed for such purposes).[35] [Italics added for emphasis]

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[34] Derek Lutterbeck, *Between Police and Military: The New Security Agenda and the Rise of Gendarmeries*, (Geneva: Sage Journals Online, 2004), http://cac.sagepub.com/cgi/reprint/39/1/45 (accessed April 28, 2010).

[35] Ibid., 50.

Internal security threats generated by external factors are reflected in another typical gendarmerie-type mission: border control. Border control includes illegal trafficking, illegal immigration, human smuggling and other forms of transnational organized crime that require approaches and assets different than those typically provided by civilian police. Lutterback says,

> The fact that it is in particular gendarmerie-type as opposed to 'ordinary' civilian-style police forces that have come to play a predominant role in this regard, however, can also be explained in more 'functional' or operational terms: in particular the task of monitoring green (i.e. land) and blue (sea) borders can be said to require heavier equipment than civilian-style police forces usually have, such as airplanes, helicopters and high-speed patrol boats. Moreover, given the growing danger and professionalism nowadays associated with the transnational crime syndicates operating along Europe's outer rim (as well as along the US–Mexico border) military-style discipline, organization and equipment are seen, at least by these agencies themselves, as essential in providing an effective response.[36]

In addition, border control and counterterrorism tasks and activities (e.g., French GIGN and Spanish GAR) provide gendarmerie-type organizations with capabilities to operate in hostile environments. Lutterback writes,

> Typical internal security tasks arising in peace-building missions, such as crowd control, combating organized crime, or protecting returnees, of course require police skills and equipment – the ultimate objective being not to destroy, but rather 'control' or neutralize the adversary. On the other hand, given the often high level of instability in which such operations unfold (due to the absence of functioning state structures), the most robust nature gendarmerie or paramilitary forces, and their ability to operate in hostile environments is also seen as a crucial asset.[37]

Many gendarmerie-type organizations carry a double affiliation or, in Lutterback's words, a "dual dependency" on the Ministry of Defense and the Ministry of the Interior.[38] Their financing may be organized through one or both ministries.

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[36] Lutterbeck, Derek. *Between Police and Military: The New Security Agenda and the Rise of Gendarmeries*, (Geneva: Sage Journals Online, 2004), 62, http://cac.sagepub.com/cgi/reprint/39/1/45 (accessed April 28, 2010), 51.

[37] Ibid., 62.

[38] Ibid., 48.

According to Lutterback, with their double affiliation, gendarmeries may be deployed under both civilian and military commands, and they are seen as an ideal interface between police and military forces in peace support operations.[39] For example, the Spanish Guardia Civil, while not formally part of the Spanish armed forces, has always had a double dependency on the Ministry of the Interior and the Ministry of Defense. Although now headed by a civilian director general, it nevertheless has retained its official status as an "armed institution of military nature."[40] This characteristic of the hybrid option has the potential to overcome the legal barriers that limit MOs' ability to gain experience by policing in their homeland.

The POs see gendarmerie-type organizational design as more military, because it is more centralized, hierarchical and taller; MOs view it as less military, because it is decentralized, smaller and less hierarchical. These categories, and the differences in affiliation and capabilities discussed above, would concern any MOs and POs involved in arbitrating a new organizational solution for police expeditionary capacities within those MWDS that either abolished or never had gendarmerie-type organizations.

Together, interpretation of the modeled game outcomes analysis and best organizational practices suggest extending the decision tree model and adding a solution of hybrid solutions (HOs) as a state's third option. This modifies the originally introduced decision tree and suggests assessing three rather than two options.

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[39] Derek Lutterbeck, *Between Police and Military: The New Security Agenda and the Rise of Gendarmeries*, (Geneva: Sage Journals Online, 2004),62, http://cac.sagepub.com/cgi/reprint/39/1/45 (accessed April 28, 2010), 58.

[40] Ibid, 49.

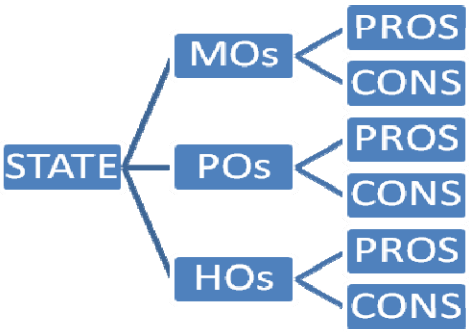

Figure 5. A modified decision tree as viewed from the state's perspective

In practice, the inclusion of a third hybrid option in the decision-making process might be more difficult than it appears, for at least two reasons. First, none of the parties involved (the state, MOs, or POs) can easily see and include the hybrid option in the decision-making process because of the decision trap of frame blindness.[41] Frame blindness is described as, "Setting out to solve the wrong problem because you have created a mental framework for your decision, with little thought, that causes you to overlook the best options or lose sight important objectives."[42] Looking for an organizational solution that is strictly police or military might reflect the limits of such mental frameworks.

Furthermore, in some cases ignoring the hybrid solution results from the conscious processes revealed in a typical example observed by Celeski in the U.S.

> What is clear…from recent high level war-gaming and doctrinal reviews of Joint warfighter tasks required in COIN environments, is that little support exists for the creation of a standing U.S. constabulary organization; it is not currently needed. However, initial experiences as occupation forces in Iraq should not restrict considerations on what may be required in future conflicts.[43]

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[41] Edward J. Russo and Paul J.H. Shoemaker, *Decision Traps: Ten Barriers to Brilliant Decision-Making and How to Overcome Them*, Doubleday, New York, 1989, 16.

[42] Ibid., 16.

[43] Joseph D. Celeski, *Policing and Law Enforcement in COIN: the Thick Blue Line*. The JSOU Press, Hurlburt Field, Florida, 2009. 46.

The opinion of "high level" military circles represents a problematic BD-outcome (2, 2) of the modeled game, which reflects the essence of the dilemma between the common and organizational self-interests described previously. Those in "high level" police circles also have little interest in organizing police expeditionary capacities. This is supported by the most significant U.S. study on the topic, a 2009 Rand Corporation study developed at the request of the Department of the Army (MOs) rather than by POs.[44] Such activity suggests that MOs might have begun to realize that in terms of the modeled game, they have ended up with their second worst outcome, represented by BD strategies (2, 2). They initiate the process of arbitration in order to achieve better outcomes and values of the game. This is optimally as close as possible to the Nash point (3.5, 3.5).

The implementation of the hybrid option within the state decision-making process is also affected by the fact that this option might be viewed as an anomaly. As Lutterback says,

> While such intermediary forces are typically viewed as an anachronism or anomaly, and – because of their ambiguous status – have generally not received much attention in the literature, they have come to play an increasingly significant role in two major areas of the contemporary security agenda: that of border control and that of peace support operations."[45]

This would seem to constitute a wicked problem; the MOs' and POs' different frames of reference lead to disagreement on how the problem should be addressed and solved.

The process of organizing police expeditionary capacities of MWDS should reflect the role of the ongoing dynamics between major sub-state stakeholders (MOs and POs) and particularly the importance of their organizational self-interests. The differing

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[44] Terrence K. Kelly, et al., *A Stability Police Force for the United States: Justification and Options for creating U.S. Capabilities*. (Santa Monica: RAND Corporation, 2009),http://www.rand.org/pubs/monographs/2009/RAND_MG819.pdf (accessed April 28, 2010).

[45] Derek Lutterbeck, *Between Police and Military: The New Security Agenda and the Rise of Gendarmeries*, (Geneva: Sage Journals Online, 2004), http://cac.sagepub.com/cgi/reprint/39/1/45 (accessed April 28, 2010), 63.

frames and organizational self-interest of experts within MOs and POs affect their own reports and judgments of the validity of such reports. Again, this qualifies as a wicked problem.

The hybrid option appears to have the potential to capture the characteristics of the Nash point better than either police or military organizational solutions. In addition to the perspective of individual MWDS, there is also an international perspective on how to organize those missing capacities, discussed in the following section.

B. INTERNATIONAL PERSPECTIVES

There is significant potential in the international context for organizing police expeditionary capacities. In particular, NATO and its principles of collective defense provide an opportunity to coordinate the process of building a force structure based on the specifics of individual member states. Some European countries (e.g., France, Italy and Spain) did not abolish the hybrid organizations that enable them to contribute to the collective defense with the required capabilities.

One practical example of international activity in this field is an initiative by several EU member states, the European Gendarmerie Force.

> The European Gendarmerie Force (EGF) is an initiative of 5 EU Member States—France, Italy, the Netherlands, Portugal and Spain—aimed at improving the crisis management capability in sensitive areas…. EGF responds to the need to rapidly conduct all the spectrum of civil security actions, either on its own or in parallel with the military intervention, by providing a multinational and effective tool. The EGF will facilitate the handling of crises that require management by police forces, usually in a critical situation, also taking advantage from the experience already gained in the relevant peace-keeping missions. ….. EGF goal is to provide the International Community with a valid and operational instrument for crisis management, first and foremost at disposal of EU, but also of other International Organizations, [such] as NATO, UN and OSCE, and ad hoc coalitions.[46]

[46] Euro gendarmes Web sites. http://www.eurogendfor.org/Default.aspx (accessed April 28, 2010).

Potential also lies in small NATO member states with little capacity for conventional warfare and states with a demonstrated lack of political support for combat operations. Such states might see reorganizing in terms of police expeditionary capacities as an opportunity to contribute in mutually convenient ways and thus avert being seen as "free riders" on NATO's collective defense. Gendarmerie-type organizations would also be better suited to deal with externally generated internal security threats such as border control, illegal trafficking, and riots and civil disturbances in general, as well as those caused by groups of immigrants. Lutterbeck writes,

> It suffices to note that among security analysts there now seems to be relatively broad agreement that the main security risks facing the countries of the Euro-Atlantic area since the end of bipolarity, apart from threats posed by so-called rogue states (armed with weapons of mass destruction), are no longer state-based and military but rather *non-state and transnational, consisting in various illicit or uncontrolled cross-border phenomena at the sub-state level*. At the top of the 'new security agenda' one typically finds issues such as *drug trafficking, trafficking in hazardous substances, irregular immigration, human smuggling as well as other forms of transnational organized crime* — all phenomena which are seen as having gained in salience and momentum due to deepening interdependence and rapid advances in communication and transportation technologies…[47]

Gendarmerie-type organizations to deal with externally generated internal security threats would also be more motivated to provide their capacities to deal with these threats. This assumes that such organizations would understand how these new threats relate to one another. This further suggests that there is a higher probability that a hybrid organization would be motivated to exercise its capacities overseas and that these capacities will be used within the state when they are not needed elsewhere.

Due to the wickedness of this problem territory, the role of an independent arbiter is crucial. In particular, starting negotiations between representatives of major sub-state stakeholders would require the initiative of an arbiter authorized to get the MOs and POs involved in the process. Neither MOs nor POs would be inspired to initiate and undergo

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[47] Derek Lutterbeck, *Between Police and Military: The New Security Agenda and the Rise of Gendarmeries*, (Geneva: Sage Journals Online, 2004), http://cac.sagepub.com/cgi/reprint/39/1/45 (accessed April 28, 2010), 51.

the process of arbitration based on the hybrid option's promising potential, because they still operate with organizational self-interest and possibly frame blindness as well. This suggests that the arbiter should be not represent the sub-state organizational level (MOs and POs) but rather the state level (president or prime minister level). It also suggests that the process should be initiated from that level.

The role of an independent arbiter and the importance of initiating discussion of stakeholders' viewpoints is supported by a recommended strategy for coping with wicked problems—the collaborative strategy. Roberts says that collaboration is based on the principle that in joining forces, parties can accomplish more collectively than as independent agents. The core of collaboration, he says, is a "win-win" view of problem solving.[48] This underlines the role of the state as an involved stakeholder with the authority to bring both sub-state stakeholders to the negotiation table and to implement a collaborative strategy for dealing with this wicked problem.

The hybrid option seems more likely to capture the characteristics of a Nash point than either police or military organizational solutions. Changes in the organization of police expeditionary capacities should be initiated and executed at the state level. In addition, the international perspective has the promising potential to organize these capacities on the international level.

[48] Nancy Roberts, *Coping with Wicked Problems: The Case of Afghanistan*. Learning from International Public Management Reform, Volume 11B, Elsvier Science Ltd., 353.

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VI. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH AND PRACTICE

This thesis proposes a mathematical modeling approach to the domain of strategic decision-making processes in organizing police expeditionary capacities. It argues that a new security paradigm has been generated by processes of globalization in which internal security threats depend on external factors (transnational terrorism and serious organized crime) and external security threats depend on internal factors (non-state actors). This new security paradigm calls for reorganizing MWDS's current police expeditionary capacities and building new ones. It also argues that the traditional way of organizing such capacities within either police or military organizations provides only an inappropriate, limited and unsustainable organizational solution.

The main conclusion of this thesis is the suggestion that decision makers consider a hybrid organizational option as mathematically the most likely sustainable outcome (organizational solution) for police expeditionary capacities within MWDSs. This means that decision makers should assess not only the organizational options of POs and MOs, but also a hybrid option represented most typically by gendarmerie-type organizations. This thesis does not assess these three options. Such assessment must be done with attention to the specific circumstances of each MWDS; this is beyond the scope of this thesis. Rather, this thesis emphasizes the importance of the hybrid option as potentially enabling and incentivizing inspirational organizational practice. The thesis explains why this is so by interpreting the analysis of modeled game's outcomes.

The mathematical modeling in the thesis is based on the author's judgments. It is thus recommended that further mathematical modeling include such specifics as individual states' historical traditions, public opinion, current organizational practices, legal constraints, and degrees of cooperation versus competition between MOs and POs. A deeper examination of each state's police and existing or potential hybrid organizations will provide better inputs to the mathematical model and increase the validity of the outputs.

The process of organizing MWDS's police expeditionary capacities should reflect the ongoing dynamics between major sub-state stakeholders and the conflict between common and organizational self-interests. In the current climate, the validity of reports by experts may well be affected by these complicated dynamics. This is one reason why the methods used in this thesis might be a tool against the decision trap of frame blindness.[49] The method also contributes to better problem identification within the wicked problem territory. The fact that major sub-state stakeholders do not agree on whether there is a problem, how to specify the problem and how to solve it supports the claim that organizing police expeditionary capacities is in the wicked problem category. The thesis emphasizes the role of an independent arbiter representing the state level, because simply presenting the potential of a hybrid option is unlikely to change the bureaucratic resistance of MOs and POs.

This thesis is also a response to the topics of interest announced by Special Operations Command, and specifically to SOCOM interest in the use of mathematical modeling to study of interagency cooperation. The author hopes that it contributes insights on the problem territory connected with population-centric operations. The analytic techniques and game analysis used in this thesis can provide SOCOM with an approach to assessing the organizational aspects of missing police capabilities. The thesis demonstrates how these methods can reveal important dynamics between major sub-state stakeholders that determine potential barriers and failures of the process. The interpretation of these dynamics in terms of gendarmerie-type organizations illustrates how these methods can complement and integrate with other analyses.

[49] Edward J. Russo and Paul J.H. Shoemaker, *Decision Traps: Ten Barriers to Brilliant Decision-Making and How to Overcome Them*, Doubleday, New York, 1989, 16.

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